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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,354	07/18/2003	Chang-Dong Yeo	1293.1936	2571

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EXAMINER

HABERMEHL, JAMES LEE

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/621,354	<b>Applicant(s)</b> YEO ET AL.	
	<b>Examiner</b> James L Habermehl	<b>Art Unit</b> 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003 and 31 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 12-15 is/are allowed.
- 6) ☒ Claim(s) 11, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 Dec 03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

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1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. The drawings were received on 31 December 2003. These drawings are approved by the examiner.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Nunnelly. Nunnelly Figures 5-6 meet all the limitations of the claims, including a profile creating unit to measure an output signal of the magnetic head along a radial direction of the magnetic disk to create an offtrack profile (520 and 610 plus 620), a magnetic write width measuring unit to determine an amplitude reduction ratio of a target track from the offtrack profile to determine the magnetic write width corresponding to the determined amplitude reduction ratio (530 and 662). Col. 6, lines 17-19 show width is determined after the disk drive is assembled.

The method steps of claims 16-17 correspond to the apparatus limitations of claim 11, and are met in the operation of the disk drive of Nunnelly as disclosed above.

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5. Claims 1-10 and 12-15 are allowed over the prior art of record. The following is a statement of reasons for the indication of allowable subject matter:

Claim 1 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a method to determine a magnetic head write width comprising writing burst patterns on the adjacent tracks, the adjacent tracks being offtracked by a predetermined percentage toward the target track, as presented in the environment of claim 1. It is noted that the closest prior art, Nunnelly, shows determining magnetic head write width similar to the claimed invention. However, Nunnelly fails to disclose writing burst patterns on the adjacent tracks, the adjacent tracks being offtracked by a predetermined percentage toward the target track as claimed.

Claim 5 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose an apparatus to determine a magnetic head write width comprising writing burst patterns on plural tracks on the disk, creating an offtrack profile, and determining the magnetic write width corresponding to the determined amplitude reduction ratio, as presented in the environment of claim 5. It is noted that the closest prior art, Nunnelly, shows determining magnetic head write width similar to the claimed invention. However, Nunnelly fails to disclose writing burst patterns on plural tracks on the disk, creating an offtrack profile, and determining the magnetic write width corresponding to the determined amplitude reduction ratio as claimed.

Claim 7 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a computer readable medium to determine a magnetic head write width comprising writing burst patterns on the adjacent tracks,

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the adjacent tracks being offtracked by a predetermined percentage toward the target track, as presented in the environment of claim 7. It is noted that the closest prior art, Nunnelly, shows determining magnetic head write width similar to the claimed invention. However, Nunnelly fails to disclose writing burst patterns on the adjacent tracks, the adjacent tracks being offtracked by a predetermined percentage toward the target track as claimed.

Claim 12 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose an apparatus to determine a magnetic head write width comprising writing burst patterns on plural tracks on the disk, creating an offtrack profile, and determining the magnetic write width corresponding to the determined amplitude reduction ratio, as presented in the environment of claim 12. It is noted that the closest prior art, Nunnelly, shows determining magnetic head write width similar to the claimed invention. However, Nunnelly fails to disclose writing burst patterns on plural tracks on the disk, creating an offtrack profile, and determining the magnetic write width corresponding to the determined amplitude reduction ratio as claimed.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lamberts et al. Figures 4-5, Emo et al., and Meyer et al. Figures 7 show determining write head width similar to applicant's invention. Lamberts Figure 6 and Malone, Sr. Figure 8 determine write head width. Richter Figures 2-3 show measuring signal decay in a manner similar to applicant's invention.

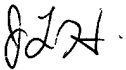
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L Habermehl whose telephone number is (703)305-6975.

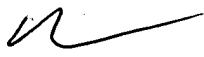
The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703)308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Habermehl/jlh  
31 Jan 05



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